

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: FLORES-LIRA, Ricardo; GARZA-DE LA GARZA, Sanjuana

SERIAL NO.:

FILED: Herewith

TITLE: PRODUCTION OF TETRABASIC LEAD SULFATE FROM SOLID STATE REACTIONS FOR THE PREPARATION OF ACTIVE PLATES TO BE USED IN LEAD-ACID BATTERIES

PRELIMINARY AMENDMENT

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

In conjunction with the filing of the present application, and prior to an initial Official Action on this matter, please amend the above-identified application as follows:

Preliminary Amendment: SPECIFICATION AMENDMENTS

In Paragraph [0019], please amend the paragraph as follows:

Fig. 1 shows a graph illustration of a characteristic x-ray diffraction pattern for tetrabasic lead sulfate obtained by a solid state reaction according to the present invention.

IN THE ABSTRACT

On page 16, please amend the ABSTRACT as follows:

The present invention relates to different methods used for the production of tetrabasic lead sulfate by means of solid state reactions at high temperatures, which allow the formation of powders having a particle size of less than 10 µm. In the methods which are claimed in the present invention, the chemical reaction that takes place between lead oxide and different sulfated compounds occurs in a single high temperature treatment. The sulfated compounds used in the present invention to produce the tetrabasic lead sulfate are: PbSO₄, 3PbO·PbSO₄·H₂O, H₂SO₄ and (NH₄)₂SO₄. The present invention also claims the There are lead-acid battery pastes produced using the tetrabasic lead sulfate made according to the methods claimed, the lead-acid battery plates made with said the pastes, and the lead-acid batteries subsequently made with them the plates.